Synthesis of New Analogues of the Bengamides to encapsulate in magnetic nanoparticles.

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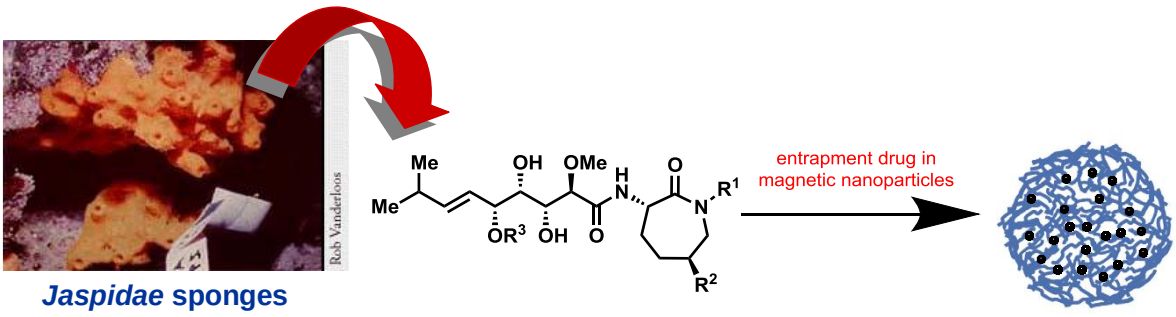
ABSTRACT

The development and identification of new antitumoral has become a research area of great interest and maximum priority due to secondary effects of current antitumoral and the appearance of tumours resistant to these agents. Marine sponges corresponding to the *Jaspidae* family have proved to be a prolific source of bioactive natural products. Among these, the Bengamides have showed an important biological profile, including antitumor, antibiotic and anthelmintic properties. Due to the interest of theses natural products, we describe a study directed towards the total synthesis of this class of compounds. Then we encapsulate Bengamides in temperature sensitive microgels with a magnetic core. Magnetic nanoparticles (Fe_3O_4) were prepared by coprecipitation method and the surface was functionalized by acrylic acid. Polymer poly(N-isopropylacrylamide) (PNIPAM) were grown by free radical polymerization in presence of cross-liker and initiator.

Key words: Bengamides, *Jaspidae*, Antitumoral, analogues, total synthesis, magnetic nanoparticles.



***Jaspidae* sponges**